## TWO NEW SPECIES OF VERBESINA (ASTERACEAE: HELIANTHEAE) FROM MÉXICO

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## ABSTRACT

Two new species of Verbesina, V. hidalgoana B. Turner and V. macdonaldii B. Turner are described from Hidalgo and Oaxaca, México, respectively. Verbesina hidalgoana belongs to the section Pseudomontanoa; the relationship of V. macdonaldii is obscure, apparently representing a very distinct element in the genus.

KEY WORDS: Verbesina, Asteraceae, Heliantheae, Hidalgo, Oaxaca, taxonomy, México.

Routine identification of Mexican Asteraceae has revealed the following novelties.

Verbesina hidalgoana B. Turner, sp. nov. TYPE: MÉXICO. Hidalgo: Mpio. Molango, vicinity of Molango on road to Lolotla, 1600 m, 9 Nov 1946, H.E. Moore, Jr. 1979 (HOLOTYPE: BH).

Verbesina fastigiatae B.L. Robins. & Greenm. multo similis sed foliis paucioribus omnino nonlobatis et capitulescentia multo pauciore foliis superis tantum parum longiore differt.

Suffruticose herbs or shrubs 1-2 m high. Stems hispidulous, narrowly winged throughout, the wings 0.5-1.0 mm wide. Leaves opposite throughout, 10-22 cm long, 5-10 cm wide; petioles 2-7 cm long; blades ovate-deltoid, gradually tapering upon the petioles, the latter winged throughout, rather coarsely pubescent above with broad based, recurved hairs, the undersurfaces coarsely hispidulous with straight hairs, especially along the venation, the margins serrulate, unlobed. Heads 20-50 in terminal congested cymose panicles, the ultimate peduncles mostly 3-15 mm long, the capitulescence 4-8 cm wide, 4-7 cm high, only slightly exceeding the upper foliage. Involucres turbocampanulate, 4-6 mm high, the bracts graduate, hispidulous. Ray florets 8-13, pistillate, fertile, the ligules yellow, 4-6 mm long. Disk florets ca 30; corollas yellow, the tube pubescent, ca 1 mm long, the throat glabrous, ca 3 mm long.

Achenes 4-5 mm long, glabrous or nearly so, the pappus of 2 awns 3-5 mm long.

Additional specimen examined: MÉXICO. Hidalgo: Mpio Zacualtipan, vicinity of Zacualtipan, rich mixed woods in ravine beside Río Teponapa, ca 2000 m, 20 Oct 1949, H.E. Moore, Jr. 5389 (BH).

Verbesina hidalgoana clearly belongs to the section Pseudomontanoa (Turner 1985) where it relates to V. fastigiata and V. olsenii B. Turner, differing from both in its smaller unlobed leaves and reduced capitulescence which barely exceeds the upper foliage.

Verbesina macdonaldii B. Turner, sp. nov., Figure 1. TYPE: MÉXICO. Oaxaca: 35 km ESE of Miahuatlán, 5 km NE of Santo Domingo Ozolotepec, Cerro Quiexobra, timberline vegetation in open glades along ridges and in mountain "saddles," occasional on SE exposures, 3650-3800 m, (16° 10′ N, 96° 15′ W), 10 Dec 1989, Andrew McDonald 2936 (HOLOTYPE: TEX; Isotype: MEXU).

Verbesina oaxacanae DC. similis sed foliis oppositis crassioribus in paginis infernis dense appressi-pilosis et capitulis paucioribus involucris ca 1.5 cm altis differt.

Woody shrubs 2-3 m high. Stems densely pubescent, wingless. Leaves opposite, thick and leathery, 8-12 cm long, 3-4 cm wide; petioles thick, 2-4 mm long; blades mostly elliptical, somewhat bicolored, moderately hirsute and dark green above, densely pilose and dirty white beneath, the margin revolute, entire or nearly so. Heads radiate, arranged 3 to 4 in terminal cymes, the ultimate peduncles 3-6 cm long, thick and densely pilose. Involucres ca 1.5 cm high, ca 3 cm wide, 2-3 seriate, the outer bracts ovate-lanceolate, somewhat spreading, longer than those of the inner series. Receptacles convex, ca 8 mm across, the pales linear-oblanceolate, acute at the apices. Ray florets 13-21, neuter or pistillate, fertile or not, the ligules dark vellow, 11-15 mm long, 2-3 mm wide, the tube pubescent, ca 3 mm long. Disk florets numerous, the corollas yellow, ca 4.5 mm long, the tubes pilose, ca 1.5 mm long, the lobes 5, ca 0.6 mm long. Anther sacs purplish. Style branches with acute appendages. Achenes (somewhat immature?) ca 4 mm long, black, radially flattened, glabrous, ca 1.5 mm wide, wingless or seemingly so, a very narrow wing (ca 0.1 mm wide) along the upper shoulders; pappus of 2, readily deciduous, linear-lanceolate bristles 2.5-3.0 mm long.

A very distinct species, not readily related to yet others, but perhaps closest to *Verbesina liebmannii* Schultz-Bip. or *V. oaxacana* DC., both of which have smaller, more numerous heads and alternate leaves.

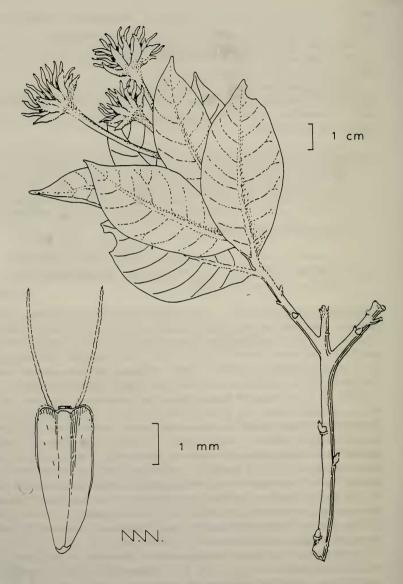


Fig.1 Verbesina macdonaldii, from holotype.

It is a pleasure to name this remarkably distinct species for its only known collector, Dr. Andrew McDonald, apparently the first professional systematist to ascend Cerro Quiexobra. Among his collection of Asteraceae from this first venture, seven new species were discovered (Nesom, in prep.; Turner, in prep.). Additional field work on this isolated mountain is certain to yield additional novelties.

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## LITERATURE CITED

Turner, B.L. 1985. Revision of Verbesina sect. Pseudomontanoa (Asteraceae). Pl. Syst. Evol. 150:237-262.